

# SIEMENS

PATENT

Attorney Docket No. 2002P17939WOUS

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application of:

|             |               |   |                   |                    |
|-------------|---------------|---|-------------------|--------------------|
| Inventor:   | S. Armbruster | ) | Group Art Unit:   | 3651               |
|             |               | ) |                   |                    |
| Serial No.: | 10/535,038    | ) | Examiner:         | Prakasam, Ramya G. |
|             |               | ) |                   |                    |
| Filed:      | 05/12/2005    | ) | Confirmation No.: | 3563               |

Title: METHOD AND SYSTEM FOR TRANSPORTING MATERIAL

Mail Stop Appeal Brief - Patent  
**Commissioner for Patents**  
P.O. Box 1450  
Alexandria, VA 22313-1450

APPELLANTS' BRIEF UNDER 37 CFR 41.37

Sir:

This brief is in furtherance of the Notice of Appeal filed in this application on 9 April 2008.

1. REAL PARTY IN INTEREST - 37 CFR 41.37(c)(1)(i)

The real party in interest in this Appeal is the assignee of the present application, Siemens Aktiengesellschaft.

2. RELATED APPEALS AND INTERFERENCES - 37 CFR 41.37(c)(1)(ii)

There is no other appeal, interference or judicial proceeding that is related to or that will directly affect, or that will be directly affected by, or that will have a bearing on the Board's decision in this Appeal.

3. STATUS OF CLAIMS - 37 CFR 41.37(c)(1)(iii)

Claims cancelled: 1 - 33.

Claims withdrawn but not cancelled: None.

Claims pending: 34 - 44.

Claims allowed: none.

Claims rejected: 34 - 44.

4. STATUS OF AMENDMENTS - 37 CFR 41.37(c)(1)(iv)

In response to the Final Office Action mailed 26 December 2007 the Appellant submitted a request for reconsideration of the final rejections under Rule 116 without amendment. No amendment has been made to the claims since issuance of the final rejection.

5. SUMMARY OF THE CLAIMED SUBJECT MATTER- 37 CFR 41.37(c)(1)(v)

5A. BRIEF BACKGROUND PROVIDING CONTEXT FOR THE SUMMARY OF CLAIMED SUBJECT MATTER

The invention relates to a system for material transport. In many industrial sectors operators of fork lift and stacker trucks have to detect locations for depositing or picking up material. Without automated aid for preventing errors, incorrect input or operator error can result in incorrect data entries, work stoppages and economic losses. The invention enables accurate and complete provision of material storage location information without operator input. Inclusion of a stationary data processing device enables a full and correct storage inventory. An additional data processing device, connected to a truck or other mobile vehicle, operates with detection devices to provide position coordinates and transport instructions.

5B. CONCISE EXPLANATION OF SUBJECT MATTER DEFINED IN EACH  
INDEPENDENT CLAIM

5B(i). Summary of Subject Matter Defined In Claim 34, the Sole Independent Claim

With reference by page and line number to the detailed description, the following summary describes one or more exemplary embodiments disclosed in the Specification and which are covered by specific claims, but it is to be understood that the claims are not so limited in scope.

With reference to Figures 1 and 2, **Independent claim 34** is directed to a material transport monitoring system for use in and about a facility (5, 7a, 7b, 8a, 8b), for monitoring the movement of material (9, 10) by a transport mechanism 1. See page 5, lines 8 - 25. The system includes a first data processing device 2 (see page 5, lines 26-30) and at least one detection device 12 for providing information determinative of planar position coordinates of the mobile transport mechanism (see page 6, lines 7 - 12). The device 12 may also provide coordinates for material transported, deposited or picked up as well as an angle of approach (see again page 6, lines 7 - 12). The detection device 12 is mountable to the transport mechanism 1 (see again page 6, lines 7 - 12) and the detection device has means for sending and receiving signals (see page 7, lines 1 - 22). A second data processing device (host PC) is positionable on or within the transport mechanism (see page 6, lines 21 - 23). A plurality of response units 6 are positioned at fixed locations about the facility (5, 7a, 7b, 8a, 8b) and cooperatively coupled with the detection device 12 to provide the information determinative of coordinates. See page 7, lines 1 - 22. One or more wireless links 4 effect data transfer from the detection device 12 to the first data processing device 2 and for effecting communication between the first and second data processing devices. See page 6, lines 21 - 31. Upon receiving signals from the detection device 12 the response units 6 provide signals to the detection device 12, by means of which position coordinates of the transport mechanism are determinable and locations of material can be determined. See page 7, lines 10 - 22.

6. GROUNDS OF REJECTION TO BE REVIEWED UPON APPEAL - 37 CFR 41.37(c)(1)(vi)

1. Whether claims 34 - 38 and 40 - 44 are unpatentable under 35 U.S.C. Section 102 as being anticipated by U.S. Patent No. 6,208,916 (Hori).
2. Whether claim 39 is unpatentable under 35 U.S.C. Section 103 over Hori in view of U.S. Application No. 2004/0010337 (Mountz).

7. ARGUMENT 37 CFR 41.37(c)(1)(vii)

Patentability of Each Claim is to be Separately Considered

Appellant urges that patentability of each claim should be separately considered. All of the claims are separately argued. General argument, based on deficiencies in the rejection of independent claim 34 under Section 102 demonstrates patentability of all dependent claims. However, none of the rejected claims stand or fall together because each dependent claim further defines a unique combination that patentably distinguishes over the art of record. For this reason, the Board is requested to consider each argument presented with regard to each dependent claim. Argument demonstrating patentability of each dependent claim is presented under subheadings identifying each claim by number.

7A. APPELLANTS TRAVERSE ALL REJECTIONS BASED ON THE HORI REFERENCE.  
PATENTABILITY OF EACH CLAIM SHOULD BE SEPARATELY CONSIDERED.

7A(1) REJECTION OF THE INDEPENDENT CLAIM 34 UNDER SECTION 102 BASED ON  
THE HORI REFERENCE IS IN ERROR.

GENERAL BASIS TO OVERTURN ALL REJECTIONS UNDER SECTION 102

MPEP §2131 provides that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as contained in the claim. The elements must be arranged as required by the claim. It is improper for the Examiner to contend that a reference implies a disclosure of the invention when the Examiner is actually drawing an improper inference.

7A(1) REJECTION OF INDEPENDENT CLAIM 34 UNDER SECTION 102 BASED ON THE HORI REFERENCE IS IN ERROR.

Claim 34 is directed to a material transport monitoring system for monitoring the movement of material by a transport mechanism (e.g., a truck) about a facility. The monitoring system includes:

- "a first data processing device;
- at least one detection device for providing information determinative of planar position coordinates of the mobile transport mechanism, wherein the detection device is mountable to the transport mechanism, wherein the detection device has means for sending and receiving signals;
- a second data processing device positionable on or within the transport mechanism;
- a plurality of response units ... cooperatively coupled with the detection device to provide the information determinative of coordinates;
- one or more wireless links for effecting data transfer from the detection device to the first data processing device and for effecting communication between the first and second data processing devices ..."

The rejection of claim 34 contends that the Hori reference discloses all of these features. Despite having brought clear error to the attention of the Examiner, the Examiner continues to argue that the claimed "first data processing device" can be read upon a "reflector map" which is clearly not a processor at all. A map is a map and a processor is a processor. As explained at col. 3, lines 28 - 40 of Hori, the reflector map 18 **stores** the positions of reflectors along the travelling path and a different component, i.e., a "present position calculation section 19" calculates position based on the data in the reflector map. Thus while the map 18 may comport with a memory device or storage, the data it contains is processed by a different component. Thus there is no basis to argue that the "map" is a processor. It is only the Appellant who teaches a material transport monitoring system which includes the combination of both a "first data processing device" and a "second data processing device positionable on or within the transport mechanism ..."

Appellant notes that the Examiner has repeatedly relied on the passages at col. 3 and yet does not seem to acknowledge what this disclosure actually states. Specifically, the Examiner's remarks presented in the Advisory Action are simply counter productive and have forced the Appellant to file this unnecessary Appeal Brief at great cost and causing delay in having an

issued patent. *More cooperation is expected in the examination process and it is not in the interest of the public nor in the interest of the Patent Office to be so unreasonable.*

Based on at least the above-noted deficiency the rejection of claim 34 must be reversed.

7A(1)ii REJECTION OF DEPENDENT CLAIM 39 UNDER SECTION 103 BASED ON HORI IN VIEW OF MOUNTZ IS ALSO IN ERROR.

Claim 39, which depends from independent claim 34 is allowable at least on the basis upon which claim 34 is allowable. Further, the material transport monitoring system according to claim 39 requires a detection device "configured as a radar device." The rejection must meet all of the claimed terms. For example, the combination of claim 39 requires a first data processing device, a second data processing device and a detection device configured as a radar device. For reasons noted above with respect to claim 43, the Hori reference lacks the claimed first data processing device. The Mountz reference does not compensate for this deficiency. Accordingly the rejection is in error and must be reversed.

7A(2) THE REJECTION OF CLAIMS 35 - 38 AND 40 - 44 WHICH EACH DEPEND FROM CLAIM 34, UNDER SECTION 102 BASED ON THE HORI REFERENCE IS ALSO IN ERROR.

Each of the claims depending from claim 34 and rejected under section 102 defines distinct and non-obvious subject matter and further distinguishes the invention over the prior art.

CLAIM 35 FURTHER DISTINGUISHES OVER THE ART OF RECORD

The material transport monitoring system according to claim 35 is configured to determine the current speed of the transport mechanism. The rejection must meet all of the claimed terms. For example, the combination of claim 35 requires a first data processing device, a second data processing device and a detection device configured as a radar device. As noted above with respect to claim 34 the Hori reference lacks the claimed first data processing device. Accordingly the rejection is in error and must be reversed.

#### CLAIM 36 FURTHER DISTINGUISHES OVER THE ART OF RECORD

The material transport monitoring system according to claim 36 includes a data processing device and/or a detection device "capable of calibrating the position coordinates of the transport mechanism to a material-relevant point." The citation of col. 3, lines 10-17 does not indicate calibration to a "material relevant point." Further, again, even if this feature were construed to be present in the cited passage, the rejection must meet all of the claimed terms. For example, the combination of claim 36 requires a first data processing device, a second data processing device and a capability for calibrating the position coordinates of the transport mechanism to a material-relevant point. As noted above with respect to claim 34 the Hori reference lacks the claimed first data processing device. Accordingly the rejection is in error and must be reversed.

#### CLAIM 37 FURTHER DISTINGUISHES OVER THE ART OF RECORD

The material transport monitoring system according to claim 37 is configured to provide position coordinates with at least one area identifier. The Hori reference provides no such disclosure. Although the Examiner again cites col. 3, lines 10-17 to reject subject matter, there is a failure to identify specific text which the Examiner has allegedly interpreted to read upon the claimed feature. Appellants contend that the Examiner is plainly wrong. It is incumbent upon the Examiner to demonstrate otherwise.

#### CLAIM 38 FURTHER DISTINGUISHES OVER THE ART OF RECORD

The material transport monitoring system according to claim 38 is configured to determine a type of storage of the material from the position angle. The rejection again cites col. 3, lines 10-17, but this passage has nothing to do with the claimed subject matter and the Examiner has made no effort to explain why the passage is cited. In the absence of any possible disclosure of this subject matter the rejection must be reversed.

#### CLAIM 40 FURTHER DISTINGUISHES OVER THE ART OF RECORD

In the material transport monitoring system according to claim 40, the detection device provides current position information to the first data processing device for determination of current speed and position angle of the transport mechanism. It is not seen that the Final Rejection even attempts to cite a passage from the Hori reference to argue anticipation. Yet the claim is rejected under Section 102. Clearly, based on the effort to read the claimed first data processing device on a "map" and the inability to "find" a "first data processing device" it is not possible to find structure or function in the Hori reference that comports with the detection device **providing** information to the first data processing device. Reversal of the rejection is in order.

#### CLAIM 41 FURTHER DISTINGUISHES OVER THE ART OF RECORD

The material transport monitoring system according to claim 41 is configured to define material pick-up points with respect to a material-relevant point on the transport mechanism. It is not seen that the Final Office Action makes any attempt to read this combination on the prior art. The above-recited feature appears absent from the Hori reference and certainly the claimed combination is not to be found in the prior art. In the absence of any showing by the Examiner the rejection cannot stand.

#### CLAIM 42 FURTHER DISTINGUISHES OVER THE ART OF RECORD

The material transport monitoring system according to claim 42 is configured to "define material relevant points for different types of transport mechanisms including stacker trucks; define elevation coordinates in conjunction with the planar position coordinates; and determine a position angle of the transport mechanism relative to a storage location." For reasons noted above (claim 41) regarding failure to disclose "pick-up points" with respect to a material-relevant point, the rejection provides no basis for anticipation. Nor does the rejection address the feature of determining "a position angle of the transport mechanism relative to a storage location" and the Examiner does not appear to have attempted to make a showing. The rejection cannot stand.



#### CLAIM 43 FURTHER DISTINGUISHES OVER THE ART OF RECORD

The material transport monitoring system according to claim 43 is configured to verify and provide storage inventory information according to discrete storage locations. In this regard the rejection cites Col. 6, lines 48-66, but this passage concerns to a distance between a vehicle and a reflector and has no apparent relation to the claimed subject matter. It is not understood why the Examiner cites completely irrelevant passages to support a rejection. Because there is no disclosure relating to the claimed combination the rejection must be overturned.

#### CLAIM 44 FURTHER DISTINGUISHES OVER THE ART OF RECORD

The material transport monitoring system according to claim 44 requires a data processing device connected to the transport mechanism and connected to a device for the visual display of transport instructions, position, and/or material information. The rejection again provides a citation (Col. 3, lines 10 - 40) which has no bearing on the recited subject matter. The passage does not even relate to a "visual display". More is required to show anticipation. The rejection is in error and must be reversed.

#### 7F. CONCLUSIONS

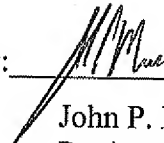
Argument has been presented to demonstrate that the rejections under Section 102 and Section 103 are deficient and that the dependent claims further distinguish over the prior art. The Examiner has argued rejections when claimed features are clearly absent from the references and not suggested by the prior art. Further the Examiner has repeatedly cited passages having no support for creating any credible argument to reject claims. None of the rejections can be sustained. For all of the above argued reasons, all of the rejections should be withdrawn and the claims should be allowed.

8. APPENDICES

An appendix containing a copy of the claims involved in this appeal is provided herewith. No evidence appendix or related proceedings appendix is provided because no such evidence or related proceeding is applicable to this appeal.

Respectfully submitted,

Dated: 6/9/08

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## APPENDIX OF CLAIMS ON APPEAL

34. A material transport monitoring system for use in and about a facility, for monitoring the movement of material by a transport mechanism, comprising:  
a first data processing device;  
at least one detection device for providing information determinative of planar position coordinates of the mobile transport mechanism, wherein the detection device is mountable to the transport mechanism, wherein the detection device has means for sending and receiving signals;  
a second data processing device positionable on or within the transport mechanism;  
a plurality of response units positioned at fixed locations about the facility and cooperatively coupled with the detection device to provide the information determinative of coordinates;  
one or more wireless links for effecting data transfer from the detection device to the first data processing device and for effecting communication between the first and second data processing devices, wherein upon receiving signals from the detection device the response units provide signals to the detection device, by means of which position coordinates of the transport mechanism are determinable and locations of material can be determined.
35. The material transport monitoring system according to claim 34 configured to determine the current speed of the transport mechanism.
36. The material transport monitoring system according to claim 34, wherein the data processing device and/or the detection device is capable of calibrating the position coordinates of the transport mechanism to a material-relevant point.
37. The material transport monitoring system according to claim 34, configured to provide position coordinates with at least one area identifier.
38. The material transport monitoring system according to claim 34, configured to determine a type of storage of the material from the position angle.

39. The material transport monitoring system according to claim 34, wherein the detection device is configured as a radar device.
40. The material transport monitoring system according to claim 34, wherein the detection device provides current position information to the first data processing device for determination of current speed and position angle of the transport mechanism.
41. The material transport monitoring system according to claim 34, configured to define material pick-up points with respect to a material-relevant point on the transport mechanism.
42. The material transport monitoring system according to claim 41 configured to: define material relevant points for different types of transport mechanisms including stacker trucks; define elevation coordinates in conjunction with the planar position coordinates; and determine a position angle of the transport mechanism relative to a storage location.
43. The material transport monitoring system according to claim 42 configured to verify and provide storage inventory information according to discrete storage locations.
44. The material transport monitoring system according to claim 34, wherein the data processing device connected to the transport mechanism is connected to a device for the visual display of transport instructions, position, and/or material information.

Serial No. 10/535,038  
Atty. Doc. No. 2002P17939WOUS

EVIDENCE APPENDIX - 37 CFR 41.37(c) (1) (ix)

None

Serial No. 10/535,038  
Atty. Doc. No. 2002P17939WOUS

RELATED PROCEEDINGS APPENDIX - 37 CFR 41.37(c) (1) (x)

None